

**Office of National Marine Sanctuaries/National Centers for Coastal
Ocean Science Long-term Agreement (ONMS/NCCOS LTA)**

**2005 Annual Liaison Report on Existing and Potential ONMS/NCCOS
Collaborative Studies at the Gray's Reef National Marine Sanctuary
(GRNMS)**



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Center for Coastal Environmental Health and Biomolecular Research (CCEHBR)**



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1. Jon Hare (NCCOS/Center for Coastal Fisheries and Habitat Research [CCFHR]), who served as the NCCOS Liaison for the GRNMS from 2000 to 2004, was replaced by Jeff Hyland (NCCOS/CCEHBR) in March 2005. Liaison activities by Dr. Hyland from that point through the end of FY05 focused on working with the GRNMS Manager (Reed Bohne), Research Coordinator (Greg McFall), and other staff in efforts to stay abreast of sanctuary research and management needs and to facilitate the responsiveness of NCCOS science to meeting such needs. Specific activities and accomplishments within this period follow.

2. Implementation of National Oceanic and Atmospheric Administration (NOAA) Ship NANCY FOSTER Cruise NF-05-12-GRNMS: Leg 1, May 2-9, 2005 at 20 random stations throughout GRNMS. This work is a follow-up to a previous (spring 2000) baseline characterization of the condition of benthic fauna and concentrations of chemical contaminants in sediments and biota within sanctuary waters. An overall goal is to provide a means for tracking potential long-term changes in the environmental quality of the sanctuary based on these indicators, as well as a basis for mitigating any future problems. An additional companion sampling effort was devoted to diver-assisted collections of cryptic benthic fauna (small hidden invertebrates) living in association with larger attached epifaunal hosts on live-bottom reefs. This will be the first-ever characterization of the diversity, abundances, and composition of this important component of the sanctuary's ecosystem and their linkages to other live-bottom host members.

3. Successful completion of three scientific meeting presentations on results of ongoing research projects at the sanctuary: (i) Hyland *et al.* 2005. "Characterization of benthic infauna and environmental quality at Gray's Reef National Marine Sanctuary (GRNMS) and nearby shelf waters off the coast of Georgia," Poster presentation at 2005 Benthic Ecology Meeting, April 7-10, 2005, Williamsburg VA; (ii) Rexing and Hyland. 2005. "Structure and trophic importance of benthic macroinfaunal communities around live-bottom reefs at Gray's Reef National Marine Sanctuary (GRNMS)," Poster presentation at 2005 Benthic Ecology Meeting, April 7-10, 2005, Williamsburg VA; and (iii) Hyland and Cooksey. 2005. "Benthic and contaminant studies at GRNMS and nearby shelf waters of the South Atlantic Bight," Oral presentation at meeting of the South Atlantic Fishery Management Council, November 16-18, 2005, Charleston SC.

4. Completion of journal manuscript by Hyland *et al.* entitled "The soft-bottom macrobenthos of Gray's Reef National Marine Sanctuary and nearby shelf waters off the coast of Georgia, USA." The manuscript, which describes important findings of our first three years of research at GRNMS, was submitted to the Journal of Experimental Marine Biology and Ecology (JEMBE) in September 05 and was accepted for publication in December 05.

5. An announcement was released in November 2005 to end the NCCOS Liaison function across the various sanctuaries. While this action officially eliminates the liaison role at GRNMS, we will continue to work with GRNMS staff as scientists and co-employees of

NOAA to implement collaborative initiatives aimed at addressing important research and coastal management goals of the sanctuary, NCCOS, and NOAA.

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